

Swarm-like seismic activities in 1989, 1990 and 1997 which preceded the 2000 Tottori-ken Seibu Earthquake

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Swarm-like seismic activities containing six moderate events ($M_j=5.1-5.4$) occurred in 1989, 1990 and 1997 in the same area of the 2000 Tottori-ken Seibu Earthquake ($M_j=7.3$). We have obtained precise hypocenter data and mechanism solutions by carrying out temporary seismic observations near the source area and processing the data together with those from permanent stations. The purpose of this study is to make it clear under what circumstances the 2000 Tottori-ken Seibu Earthquake occurred.

The precisely determined hypocenters show that the three preceding activities occurred on the same plane as the fault plane of the 2000 Tottori-ken Seibu Earthquake. The slip during the main shock rupture is small in the area of the preceding activities.